## **PCT REQUEST**

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0	For receiving Office use only	
0-1	International Application No.	
0-2	International Filing Date	
	<u> </u>	
0-3	Name of receiving Office and "PCT International Application"	
<del></del>		
0-4	Form - PCT/RO/101 PCT Request	
0-4-1	Prepared using	PCT-EASY Version 2.92
		(updated 01.01.2002)
0-5	Petition	(
	The undersigned requests that the	
	present international application be processed according to the Patent	
	Cooperation Treaty	
0-6	Receiving Office (specified by the applicant)	European Patent Office (EPO) (RO/EP)
0-7	Applicant's or agent's file reference	PCT-114
T	Title of invention	SYSTEM, APPARATUS AND METHOD FOR
		SIM-BASED AUTHENTICATION AND ENCRYPTION
		IN WIRELESS LOCAL AREA NETWORK ACCESS.
11	Applicant	
II-1	This person is:	applicant only
11-2	Applicant for	all designated States except US
11-4	Name	TELEFONAKTIEBOLAGET LM ERICSSON (PUBL)
11-5	Address:	S-SE-126 25 STOCKHOLM
		Sweden
11-6	State of nationality	SE
11-7	State of residence	SE
111-1	Applicant and/or inventor	
111-1-1	This person is:	applicant and inventor
III-1-2	Applicant for	US only
III-1-4	Name (LAST, First)	GREGORIO RODRIGUEZ, Jesús, Angel de
III-1-5	Address:	Hermanos Machado, 4, P3, 2°C
		28660 Boadilla del Monte (Madrid)
		Spain
III-1-6	State of nationality	ES
111-1-7	State of residence	ES

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(11-2	Applicant and/or inventor	
III-2-1	This person is:	amm1: mant and investigation
111-2-2	Applicant for	applicant and inventor
111-2-4	Name (LAST, First)	US only
111-2-5	Address:	MONJAS LLORENTE, Miguel, Angel
2 0	J. 133.000.	Embajadores, 177
		28045 Madrid
111-2-6	State of nationality	Spain
111-2-7	State of residence	ES
IV-1	Agent or common representative; or	ES
	address for correspondence The person identified below is hereby/has been appointed to act on behalf of the applicant(s) before the competent International Authorities as:	agent
IV-1-1	Name (LAST, First)	ELZABURU, Alberto de
IV-1-2	Address:	Miguel Angel, 21
		28010 Madrid
		Spain
IV-1-3	Telephone No.	917009400
IV-1-4	Facsimile No.	913193810
IV-1-5	e-mail	elzaburu@elzaburu.es
IV-1-5	Agent's registration No.	53430
v	Designation of States	
	if any, are specified between parentheses after the designation(s) concerned)	AP: GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW and any other State which is a Contracting State of the Harare Protocol and of the PCT EA: AM AZ BY KG KZ MD RU TJ TM and any other State which is a Contracting State of the Eurasian Patent Convention and of the PCT EP: AT BE CY CH&LI DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR and any other State which is a Contracting State of the European Patent Convention and of the PCT DA: BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG and any other State which is a member State of OAPI and a Contracting State of the PCT
(r if p	any, are specified between arentheses after the designation(s) oncerned)	AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CN CO CR CU CZ CH&LI DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN ES JP KE KG KP KR KZ LC LK LR LS LT LU EV MA MD MG MK MN MW MX MZ NO NZ OM PH EL PT RO RU SD SE SG SI SK SL TJ TM TN ER TT TZ UA UG US UZ VN YU ZA ZM ZW

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V-5	Precautionary Designation Statemen	nt	
	In addition to the designations made		•
	under items V-1, V-2 and V-3, the	1	
	applicant also makes under Rule 4.9(b	) [	
	all designations which would be		
	permitted under the PCT except any	1.	
	designation(s) of the State(s) indicated		
	under item V-6 below. The applicant declares that those additional	1	
	designations are subject to confirmation	n	
	and that any designation which is not	"	
	confirmed before the expiration of 15	ĺ	
	months from the priority date is to be		
	regarded as withdrawn by the applicant		
V-6	at the expiration of that time limit.		
V-0	Exclusion(s) from precautionary designations	NONE	
VI	Priority claim	NONE	
VII-1		NONE	
VII-T	International Searching Authority Chosen	European Patent Off	ice (EPO) (ISA/EP)
VIII	Declarations	Number of declarations	
VIII-1	Declaration as to the identity of the	-	
	inventor		
VIII-2	Declaration as to the applicant's	-	
	entitlement, as at the international filing date, to apply for and be granted a		1
	patent		
VIII-3	Declaration as to the applicant's		<del></del>
	entitlement, as at the international filing		
	date, to claim the priority of the earlier		
17121 4	application		
VIII-4	Declaration of inventorship (only for the purposes of the designation of the	<b>]</b> —	
	United States of America)		
VIII-5	Declaration as to non-prejudicial		
	disclosures or exceptions to lack of	_	
	novelty		
IX 1	Check list	number of sheets	electronic file(s) attached
X-1	Request (including declaration sheets)	4	-
X-2	Description	18	-
X-3	Claims	6	-
X-4	Abstract	1	EZABSTOO.TXT
X-5	Drawings	4	-
X-7	TOTAL	33	
	Accompanying items	paper document(s) attached	electronic file(s) attached
X-8	Fee calculation sheet		
X-17	PCT-EASY diskette	-/	Diskette
X-19	Figure of the drawings which should	2	22376006
	accompany the abstract	4 / /	
X-20	Language of filing of the	English	
	international application	1/	
(-1	Signature of applicant, agent or		
- 1	common representative	Alberto de Fizebe	<b>182</b> 4
- 1		Per Peder /	グレ
I			- IA
-1-1	Name (LAST, First)	ELZABURU, Alberto de	<b>~</b> }

## **PCT REQUEST**

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PCT-114

# FOR RECEIVING OFFICE USE ONLY

10-1	Date of actual receipt of the purported international application	
10-2	Drawings:	
10-2-1	Received	
10-2-2	Not received	
10-3	Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application	
10-4	Date of timely receipt of the required corrections under PCT Article 11(2)	
10-5	International Searching Authority	ISA/EP
10-6	Transmittal of search copy delayed until search fee is paid	

## FOR INTERNATIONAL BUREAU USE ONLY

11-1	Date of receipt of the record copy by	
	the International Bureau	

# PCT (ANNEX - FEE CALCULATION SHEET) Original (for SUBMISSION) - printed on 30.04.2002 06:45:18 PM

(This sheet is not part of and does not count as a sheet of the international application)

For receiving Office use only International Application No. Date stamp of the receiving Office  Form - PCT/RO/101 (Annex) PCT Fee Calculation Sheet Prepared using  Implicant's or agent's file reference  Implicant alculation of prescribed fees Implicant to be carried out by Iternational search to be carried out by Iternational fee  Ite	(update PCT-114 TELEFON et al. fee amount/	d 01.0  AKTIEB	Sion 2.92 01.2002) OLAGET LM ERIC Total amounts (EUR) 100 945	
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Remaining sheets Additional amount (X)	3	444		
Additional amount (X)				
(-7)	10			
Total additional amount b2				
	i e	30		
b1 + b2 = B	<del></del>	474		
Designation fees				
Number of designations contained in international application	93			
payable (maximum 5)	5			
Amount of designation fee (X)	96			
Total designation fees D		480		
PCT-EASY fee reduction R		-137		
al International fee (B+D-R)	₽		817	
TAL FEES PAYABLE (T+S+I+P)	⇨			
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horization to charge the total fees cated above.	<b>√</b>			
norization to charge any deficiency redit any overpayment in the total indicated above.	✓			
norization to charge the fee for	✓			
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PCT (ANNEX - FEE CALCULATION SHEET

PCT-114

	Origi	inal (for SUBMISSION) - printed on 30.04.2002 06/45:18 PM
12-23	Name and signature	Alberto de Elzabere
		VALIDATION LOG AND REMARKS
13-2-1	Validation messages Request	Green?  The title of the invention shall be short and precise. Please verify.
13-2-3	Validation messages Names	Yellow Applicant 1.:Street address missing
		Green? Applicant 1.: Telephone No. missing
		Green? Applicant 1.: Facsimile No. missing
		Green? Agent 1.: Where several first/given names are indicated, they should
		preferably be separated by a comma. Please verify.
13-2-4	Validation messages Priority	Green? No priority of an earlier application has been claimed. Please verify
13-2-7	Validation messages Contents	Yellow! The power of attorney or a copy of the general power of attorney will need to be furnished unless all applicants sign the request form.
		Green? The abstract appears to be more than 150 words, applicant is reminded that it should be as concise as the disclosure permits (preferably 50 to 150 words if it is in English or when translated into English)
3-2-9	Validation messages Payment	Green?  Please ensure that you have a valid deposit account with the receiving Office selected.

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#### **PCT-EASY INFORMATION SHEET**

(For applicant use only, DO NOT submit this sheet with the international application)

#### **VALIDATION LOG**

	Request
Green?	The title of the invention shall be short and precise. Please verify.
	Names
Yellow	Applicant 1.:Street address missing
Green?	Applicant 1.:Telephone No. missing
Green?	Applicant 1.:Facsimile No. missing
Green?	Agent 1.: Where several first/given names are indicated, they should preferably be separated by a comma. Please verify.
	Priority
Green?	No priority of an earlier application has been claimed. Please verify
	Contents
Yellow!	The power of attorney or a copy of the general power of attorney will need to be furnished unless all applicants sign the request form.
Green?	The abstract appears to be more than 150 words, applicant is reminded that it should be as concise as the disclosure permits (preferably 50 to 150 words if it is in English or when translated into English)
	Payment
Green?	Please ensure that you have a valid deposit account with the receiving Office selected.

Before submitting the International Application, please carefully verify that:

- -the information contained on printed Request form is correct;
- -Box X of the Request form and item 12-23 of the Annex to the Request form have been signed;
- -all elements of the international application as indicated in Boxes VIII and IX of the Request form have been attached; and, the diskette containing the PCT-EASY zlp file of the International Application has been enclosed and has been clearly labeled "PCT-EASY", with the applicant's or agent's file reference, and the first applicant's name.

#### ATTENTION

DO NOT modify any indications on the Request form printout. The electronic version of the PCT-EASY application has been locked. If an error or an omission is discovered at this time, you must reopen the stored form for submission, perform necessary amendments and immediately resubmit the form. Finally, a NEW submission diskette must be created manually by resending the corrected stored form to the diskette. The previously created printout and submission diskette must be destroyed in order to prevent the possibility of erroneously sending it to the RO.

The invention refers to a system, apparatus and method for carrying out a SIM-based authentication of a user accessing a WLAN, without having provided yet an IP connectivity, along value layer-2 encryption mechanism protecting the path between the hinal Equipment and the Mobile network. Therefore, the invention provides a method for establishing a PPP-tunnelling for AKA dialogues between the a layer-2 encryption mechanism

terminal and an Access Controller for accessing the mobile network owning the SIM.

The invention also provides an Access Controller (AC) comprising a Point-to-Point over Ethernet (PPPoE) serv€ for tunnelling AKA dialogues form a PPP-client installed in the terminal for the same purpose, and also comprisi a Traffic Router and a RADIUS-client. The AC thus including a RADIUS-client is interposed between a RADIUS-proxy accessed from the access points (AP) in the WLAN and the mobile network where SIM-based authetication is carried out.